

CLAIMS

- [001] A dishwasher (1) comprising a washing container (2) and devices for washing dishes using rinsing liquid, characterised in that the dishwasher (1) has a container (12) with a vaporisable and/or sublimable medium (1) and a sorber with reversibly dehydratable material (11) wherein gas exchange can take place between container (12) and sorber (10) and the sorber (10) is used on the one hand directly for drying the dishes and on the other hand, the thermal energy used for desorbing the sorber (10) is used to heat the rinsing liquor and/or the dishes located in the washing container.
- [002] The dishwasher according to claim 1, characterised in that the container (12) and the sorber (10) are interconnected preferably closably by means of a valve (14) by means of an exchange pipe (15) for gas exchange.
- [003] The dishwasher according to claim 1 or claim 2, characterised in that air is guided by means of a fan (13) through an outlet (5) from the washing container (2) into pipes (6, 7, 9) and back into the washing container (2) again through an inlet (8).
- [004] The dishwasher according to claim 3, characterised in that first the container (12) and then the sorber (10) are arranged in the direction of flow of the air to the pipes (6, 7, 9) to allow heat exchange between the flowing air into the pipes (6, 7, 9) and the medium (16) in the container (12) as well as the reversibly dehydratable material (11) in the sorber (10).
- [005] The dishwasher according to any one of the preceding claims, characterised in that an electric heating element (17) is located in the sorber for desorption of the reversibly dehydratable material (11).
- [006] The dishwasher according to claim 5, characterised in that when the electric heating element (17) is switched off and the valve (14) is opened, the medium

(16), i.e. water (16) can be vaporised or sublimed in the container (12) and the container (12) with medium (16) can be cooled by the latent heat of evaporation, the medium vapour is passed via the exchange pipe (15) to the sorber (10) and the medium vapour is absorbed by the reversible dehydratable material (11) in the sorber (10) whereby the sorber (10) is heated with reversibly dehydratable material (11).

[007] The dishwasher according to claim 7, characterised in that when the electric heating element (17) is switched on for desorbing the sorber (10), the sorber (10) is heated and when the valve (14) is opened, the medium (16) bound in the sorber (10) is evaporated, the medium vapour released in the sorber (10) is passed to the container (12) by means of the exchange pipe (15) and the medium vapour is condensed in the container (12) whereby the container (12) with medium (16) is heated as a result of the latent heat of evaporation.

[008] The dishwasher according to claim 6, characterised in that during a "drying" partial program step air from the washing container (2) is passed through the pipes (6, 7, 9) and back into the washing container (2), wherein the air at the container (12) is cooled and the moisture contained in the air is thereby at least partly condensed and the air at the sorber (10) is heated to increase the moisture absorption capacity of the air.

[009] The dishwasher according to claim 7, characterised in that during a "drying" partial program step using rinsing liquid to be heated, e.g. "clean" or "pre-rinse", air from the washing container (2) is passed through the pipes (6, 7, 9) and back into the washing container (2) again where the air at the container (12) is preferably heated and that at the sorber (10) is heated.

[010] The dishwasher according to claim 8, characterised in that the water formed at the container (12) by condensation from the air flowing in the pipe (6) is passed into the washing container (2) or into a separate container.